

## ABSTRACT

A digital baseband (DBB) radio frequency (RF) receiver includes a digital high pass filter compensation (HPFC) module used to suppress group delay variation distortion caused by using low cost analog high pass filters (HPFs) in the receiver. The digital HPFC module reduces a cutoff frequency, established by the HPFs for the real and imaginary signal component frequency domain responses by providing a first compensation signal having a first predetermined value ( $K_1$ ). The digital HPFC module adjusts the gain of the high pass response of the real and imaginary signal component frequency domains by providing a second compensation signal having a second predetermined value ( $K_2$ ).